Construction Advisory

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Hydrodemolition and Concrete Diamond Grinding

This construction advisory serves to clarify the permitting requirements for discharge of process water from hydrodemolition work, and to remind construction staff of the need to ensure both hydrodemolition and diamond grinding operations are completed according to the applicable contract documents.

Hydrodemolition

MDOT received clarification from MDEQ regarding the implementation of the Groundwater Discharge General Permit for hydrodemolition process water, which was negotiated in 2005. Effective immediately, the hydrodemolition contractor is required to obtain a Certificate of Coverage (COC) under the general permit prior to beginning hydrodemolition work. The COC is an annual requirement, regardless of the number and location of hydrodemolition projects a contractor works on. MDOT

provided written notification of this requirement to each of the contractors prequalified to perform hydrodemolition work.

The hydrodemolition contractor is responsible for submitting the application and paying the fee when invoiced by the MDEQ. The coverage under the general permit is effective at the time the contractor receives the COC from MDEQ. The COC will indicate the period of coverage. The project engineer should verify that the coverage will be in effect for the entire period of time that hydrodemolition work will take place on a given project. A copy of the COC should be provided by the hydrodemolition contractor and placed in the project file.

Concrete Diamond Grinding

The contractor must follow a pH control plan to ensure the pH

of the grinding residue is maintained below 12.5 prior to discharge or disposal. The control plan must specify the actions the contractor will take to meet this requirement. Once the pH is verified to be below 12.5 and the contractor opts for land application of the slurry on MDOT right-of-way, the application rate must conform to the Special Provision for Managing Diamond Grinding Slurry from Ride Quality Concrete. This includes not only adhering to the maximum rate of application, but also the site conditions at the time of application.

Application rate must be such that

- there is no ponding, pooling or runoff.
- it does not exceed 5 dry tons per acre.

Application is not permitted

 within 100 feet of any stream or lake.

- within 5 feet of any water filled ditch.
- within 5 feet from the curb.
- in any area in which the groundwater table is less than 30 inches below the surface.
- in any location where it could enter a closed drainage system.

Project staff must be aware of changing conditions on a site that may require a change in the contractor's grinding slurry application operation. One example is a recent or anticipated

rain event that may result in the slurry being carried into a surface water body, or into what is now a water filled ditch. This could result in a violation of the department's statewide storm water discharge permit. When approving the area for land application, be aware of the surrounding land features and monitor any changes in surface water flows during the slurry application operation portion of the project.

If the contractor must collect and transport the

slurry for land application or disposal, or if the dewatering option is selected, be sure all required documentation is in place and the material is properly manifested.